Supplementary Material

Regulation of nitrogen fixation in *Bradyrhizobium* sp. strain DOA9 involves two distinct NifA regulatory proteins that are functionally redundant during symbiosis but not during free-living growth

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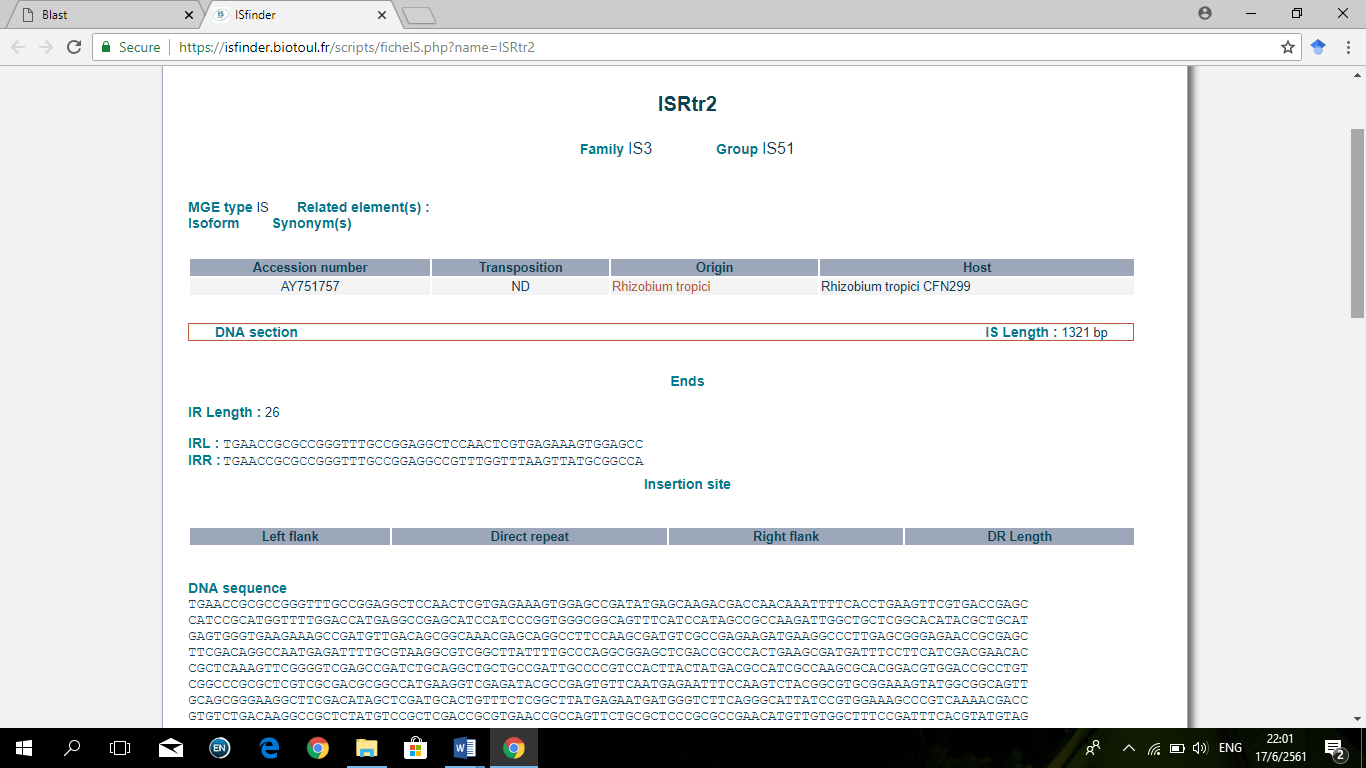
**Supplementary Text S1**

**Analysis of insertion sequence**

**From >PlasmDOA9\_398416 to 402975\_+1 at upstream of nifAp**

BlastN in <https://isfinder.biotoul.fr> to find IS type





TGAACCGCGCCGGGTTTGCCGGAGGCTCCAACTCGTGAGAAAGTGGAGCC --> **IRL**

TGGCCGCATAACTTAAACCAAACGGCCTCCGGCAAACCCGGCGCGGTTCA --> **IRR (reverted)**

>PlasmDOA9\_398416\_402975\_+1

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AATGGAGCGCTGAAGGACTCGGGAATTACGGGACTGTTCGTCAGCGAATGGAGCAGCGAG

AAACAAACGTACTTGGCTTCTCTTGACGTTCATCGCGCGCTCGACGGATTTGCGGTTAGT

CAGCTCCTGGAGGGGATCGGCTCCTCCCTTATGGAGGACAACAGGGCTGCCGGCATTGCT

GCTTCCGGCAAGACTGTGTTTAAGTTTGCCTCAGGCTCGTTAGCGGTTCTCTCAGGAAGG

ACTGTGACTTTCACGACTAAGCCCCTCGACTATCGTCAATTCGAGATGGAGTTCACGGAT

TGGCCTGACACTATTCAGCCTAAATGAACCTGCTGCCGTCGCACCAAGGAT

TGAACCGCGCCGGGTTTGCCGGAGGCTCCAACTCGTGAGAAAGTGGAGCC --> **IrL**

TGAACCATGCCGGGGCTGTCGGAGGCCAGTTTGGTTTAAGTTATGCGGCC --> COMPLEMENTARY

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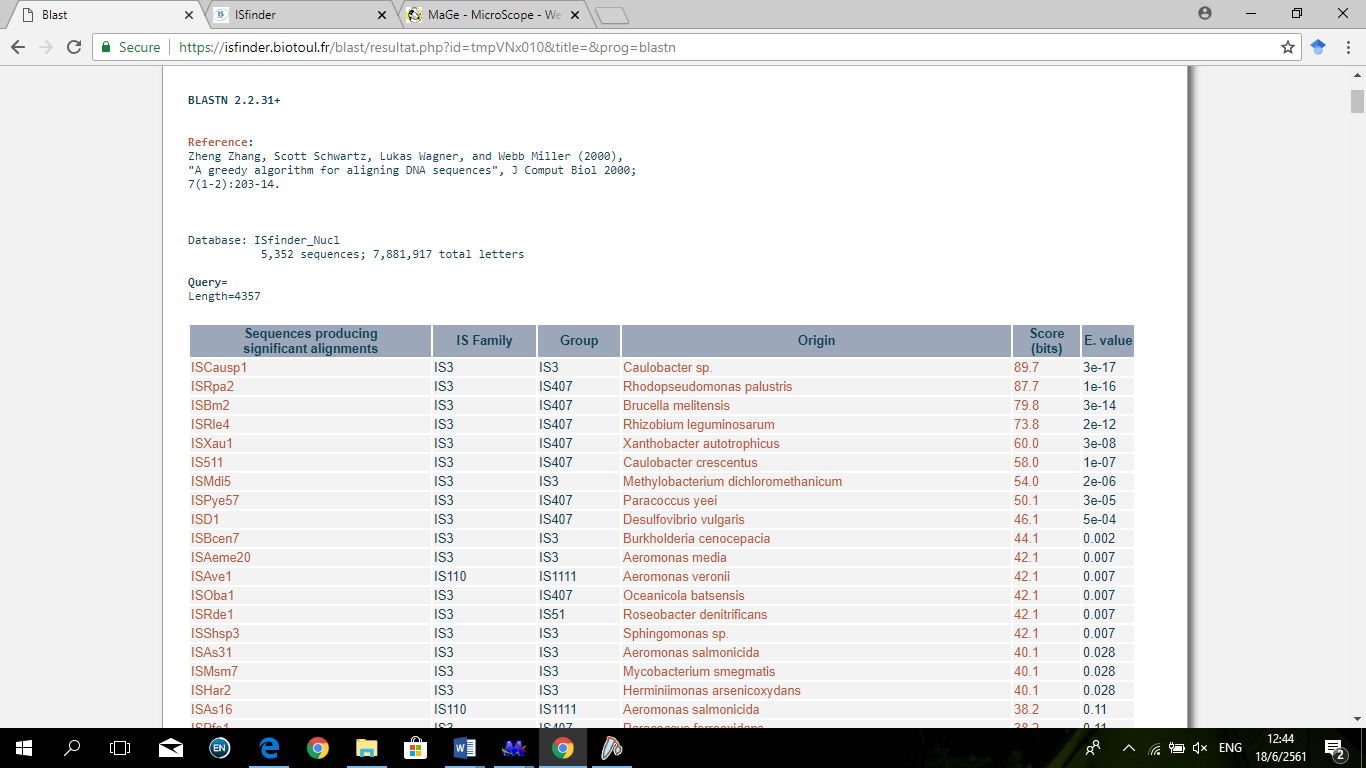
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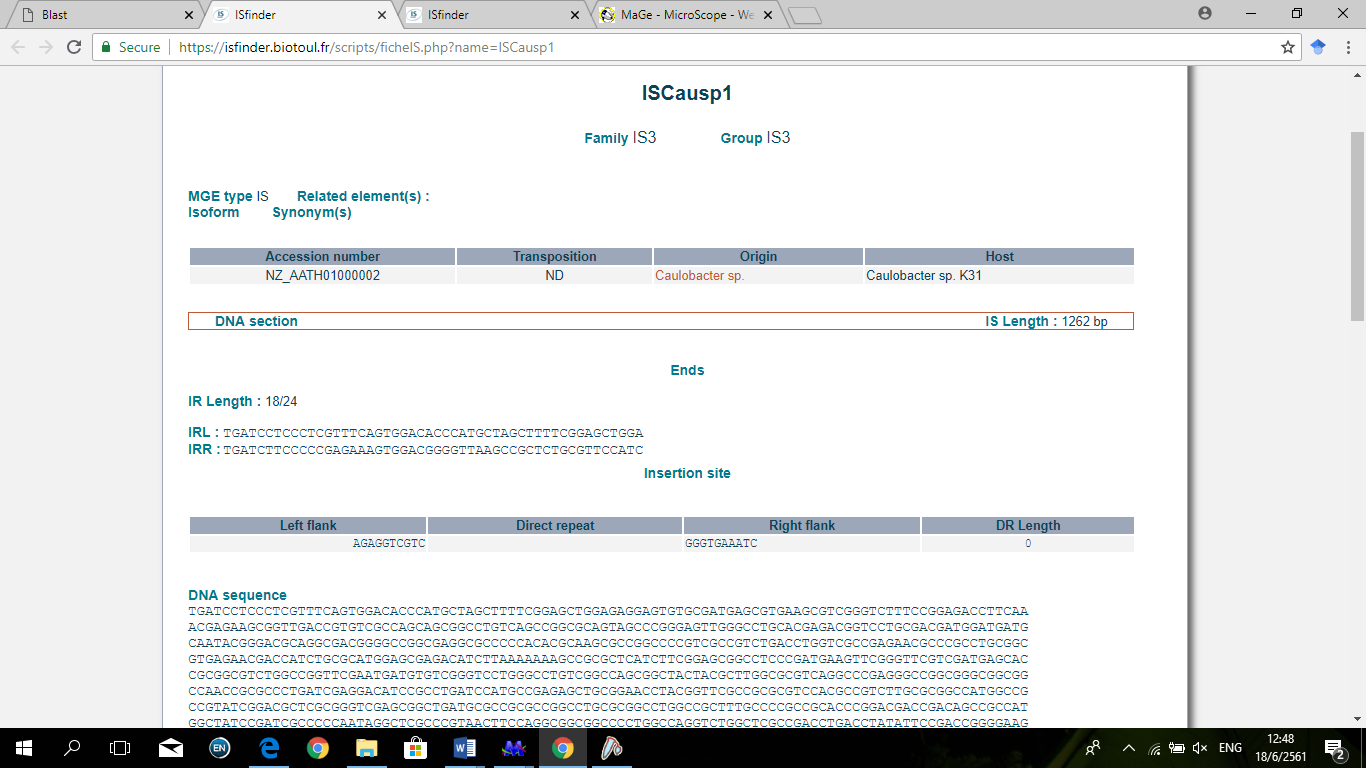
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**From >>PlasmDOA9\_404488 to 408844\_+1 at downstream of nifAp**

BlastN in <https://isfinder.biotoul.fr> to find IS type





TGATCCTCCCTCGTTTCAGTGGACACCCATGCTAGCTTTTCGGAGCTGGA --> IRL

GATGGAACGCAGAGCGGCTTAACCCC-GTCCACTTTCTCGGGGGAAGATCA --> IRR (reverted)

**From >>PlasmDOA9\_404488 to 408844\_+1**

TCGTACTTGACCGGAGGCGAGCTGCAACTTCATCAGGTCTGGTTTGTAGGCATGAGATCT

CACCTTGCCCCGGCCATAATCCAGTTCGAAGCTCGTTTCGGCGCCCAGTGAGGACCGGAA

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TGATCCTCCCTCGTTTCAGTGGACACCCATGCTAGCTTTTCGGAGCTGGA --> IRL

TGAGCCTCCCCTAATTCGGTGGACACCGAGCTTAGGCAGCAAGAGGTGTC --> COMPLEMENTARY

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